

FORM PTO-1390 REV. 5-93		US DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEYS DOCKET NUMBER P00,0451
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371			U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 09/509588
INTERNATIONAL APPLICATION NO. PCT/DE98/02837	INTERNATIONAL FILING DATE 22 September 1998	PRIORITY DATE CLAIMED 29 September 1997	
TITLE OF INVENTION INTEGRATED CIRCUIT FOR A MOBILE RADIO DEVICE WITH CALL-ANSWERING FUNCTION			
APPLICANT(S) FOR DO/EO/US Otger Wewers			
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:			
<ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. 3. <input checked="" type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay. 4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date. 5. <input checked="" type="checkbox"/> A copy of International Application as filed (35 U.S.C. 371(c)(2)) <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> has been transmitted by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US) 6. <input checked="" type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)) 7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ol style="list-style-type: none"> a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> have been transmitted by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input checked="" type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). Executed declaration 10. <input checked="" type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). 			
Items 11. to 16. below concern other document(s) or information included:			
11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98; (PTO 1449, Prior Art, Search Report)			
12. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included. (See Attached Envelope)			
13. <input checked="" type="checkbox"/> A FIRST preliminary amendment. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment.			
14. <input type="checkbox"/> A substitute specification.			
15. <input type="checkbox"/> A change of power of attorney and/or address letter.			
16. <input checked="" type="checkbox"/> Other items or information: <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> Submission of Drawings - FIG. 1 on one sheet b. <input checked="" type="checkbox"/> Express Mail EL482397318US dated 3-29-2000 			

U.S. APPLICATION NO (if known, see 37 C.F.R. 1.51)

09/509588

INTERNATIONAL APPLICATION NO
PCT/DE98/02837ATTORNEY'S DOCKET NUMBER
P00,045117. ☒ The following fees are submitted:**BASIC NATIONAL FEE (37 C.F.R. 1.492(a)(1)-(5):**

Search Report has been prepared by the EPO or JPO \$840.00

International preliminary examination fee paid to USPTO (37 C.F.R. 1.482) .. \$720.00

No international preliminary examination fee paid to USPTO (37 C.F.R. 1.482) but
international search fee paid to USPTO (37 C.F.R. 1.445(a)(2)) \$790.00Neither international preliminary examination fee (37 C.F.R. 1.482) nor international
search fee (37 C.F.R. 1.445(a)(2)) paid to USPTO \$1070.00International preliminary examination fee paid to USPTO (37 C.F.R. 1.482) and all
claims satisfied provisions of PCT Article 33(2)-(4) \$98.00**ENTER APPROPRIATE BASIC FEE AMOUNT =**

CALCULATIONS

PTO USE ONLY

\$ 840.00

Surcharge of \$130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30 months
from the earliest claimed priority date (37 C.F.R. 1.492(e)).

\$

Claims

Number Filed

Number
Extra

Rate

Total Claims

8

- 20 =

0

X \$ 18.00

\$

Independent Claims

2

- 3 =

X \$ 78.00

\$

Multiple Dependent Claims

\$260.00 +

\$

TOTAL OF ABOVE CALCULATIONS =

\$

Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity statement must also
be filed. (Note 37 C.F.R. 1.9, 1.27, 1.28)

\$

SUBTOTAL =

\$

Processing fee of \$130.00 for furnishing the English translation later than ☐ 20 ☐ 30 months
from the earliest claimed priority date (37 CFR 1.492(f)).

\$

+

TOTAL NATIONAL FEE =

\$ 840.00

Fee for recording the enclosed assignment (37 C.F.R. 1.21(h). The assignment must be
accompanied by an appropriate cover sheet (37 C.F.R. 3.28, 3.31). \$40.00 per property

+

TOTAL FEES ENCLOSED =

\$ 840.00

Amount to be
refunded

\$

charged

\$

a. ☒ A check in the amount of \$ 840.00 to cover the above fees is enclosed.b. ☐ Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees.
A duplicate copy of this sheet is enclosed.c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any
overpayment to Deposit Account No. 08-2290. A duplicate copy of this sheet is enclosed.NOTE: Where an appropriate time limit under 37 C.F.R. 1.494 or 1.495 has not been met, a petition to revive (37 C.F.R. 1.137(a) or (b)) must be
filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Hill & Simpson
A Professional Corporation
85th Floor Sears Tower
Chicago, Illinois 60606

SIGNATURE

William E. Vaughan
NAME

39,056

Registration Number

422 Rec'd PCT/PTO 29 MAR 2000

BOX PCT

IN THE UNITED STATES DESIGNATED/ELECTED OFFICE
OF THE UNITED STATES PATENT AND TRADEMARK OFFICE
UNDER THE PATENT COOPERATION TREATY-CHAPTER II

5

PRELIMINARY AMENDMENT

APPLICANT: Otger Wewers DOCKET NO: P00,0451

SERIAL NO: GROUP ART UNIT:

EXAMINER:

10

INTERNATIONAL APPLICATION NO: PCT/DE98/02837

INTERNATIONAL FILING DATE: 22 September 1998

INVENTION: **INTEGRATED CIRCUIT FOR A MOBILE RADIO
DEVICE WITH CALL-ANSWERING FUNCTION**

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Assistant Commissioner for Patents,
Washington, D.C. 20231

Sir:

20

Please amend the above-identified International Application before
entry into the National stage before the U.S. Patent and Trademark Office
under 35 U.S.C. §371 as follows:

In The Specification:

On page 1, cancel lines 1-5 and substitute therefor:

--S P E C I F I C A T I O N

25

TITLE

**INTEGRATED CIRCUIT FOR A MOBILE RADIO DEVICE WITH
CALL-ANSWERING FUNCTION**

BACKGROUND OF THE INVENTION**Field of the Invention**

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The present invention is related, generally, to an integrated circuit for
a mobile radio device with call-answering function and, more specifically, to
such an integrated circuit wherein an interface to a digital voice memory is

provided such that call-answering functionality is enabled in the device via the combination of the digital voice memory and the integrated circuit.

Description of the Prior Art--.

On page 1, line 6, cancel "Such a" and substitute therefor --A related integrated--.

On page 1, line 8, cancel "is".

On page 1, line 8, insert --is-- after "preferably".

On page 1, line 11, cancel "he wants such a mobile part with or without" and substitute therefor --or not a--.

On page 1, line 12, insert --is desired-- after "function".

On page 1, line 13, cancel "can".

On page 1, line 13, insert --can-- after "then".

On page 1, line 16, insert --present-- before "invention".

On page 1, line 16, insert --, therefore,-- after "invention".

On page 1, line 16, cancel "based on the object of specifying" and substitute therefor --directed to--.

On page 1, line 16, insert a --,-- after "circuit".

On page 1, line 17, insert a --,-- after "device".

On page 1, line 17, cancel "species" and substitute therefor --type--.

On page 1, line 17, cancel "cited" and substitute therefor --described-

-.

On page 1, cancel lines 19-23 and substitute the following therefor:

--SUMMARY OF THE INVENTION

Accordingly, in an embodiment of the present invention, an integrated circuit in a communications terminal device is provided which includes: a microcontroller; a radio cell-specific logic module; a digital signal processor for digital voice processing; and an interface to a digital voice memory with which a call-answering functionality is enabled via the microcontroller in combination with the digital voice memory.

In an embodiment, the necessary call-answering software is deposited in the microcontroller.

In an embodiment, the microcontroller, the radio cell-specific logic module and the digital signal processor are connected to one another via an internal bus system.

In an embodiment, the voice memory also is connected to the internal bus system.

In a further embodiment of the present invention, a mobile radio device for wireless linking to a cellular radio network according to the DECT standard is provided which includes: an integrated circuit having a microcontroller, a radio cell-specific logic module, a digital signal processor for digital voice processing, and an interface to a digital voice memory with which a call-answering functionality is enabled via the microcontroller in combination with the digital voice memory; and a receptacle device which is connected to the integrated circuit for acceptance of the digital voice memory.

In an embodiment of the mobile radio device, the necessary call-answering software is deposited in the microcontroller.

In an embodiment of the mobile radio device, the microcontroller, the radio cell-specific logic module and the digital signal processor are connected to one another via an internal bus system.

In an embodiment of the mobile radio device, the voice memory also is connected to the internal bus system.

Additional features and advantages of the present invention are described in, and will be apparent from, the following Detailed Description of the Preferred Embodiments and the Drawing.

DESCRIPTION OF THE DRAWING

Figure 1 shows an integrated circuit for a mobile radio device with call-answering function in accordance with the teachings of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS--.

On page 1, line 24, cancel "The single".

On page 1, line 24, insert --1-- after "Figure".

On page 1, line 24, insert --of the present invention-- after "IS".

On page 1, line 25, cancel "comprises" and substitute therefor --includes--.

On page 1, line 27, cancel "fashioned" and substitute therefor --configured--.

On page 2, line 2, cancel "development deviating therefrom" and substitute therefor --further embodiment of the present invention--.

On page 2, line 2, cancel "fashioned" and substitute therefor --configured--.

On page 2, line 2, cancel the "," and substitute therefor a --;--.

On page 2, line 3, insert a --,-- after "example".

On page 2, line 4, cancel "comprises" and substitute therefor --includes--.

On page 2, line 5, cancel "is".

On page 2, line 5, insert --is-- after "preferably".

On page 2, line 6, cancel "corresponding" and substitute therefor --necessary call-answering--.

On page 2, line 7, cancel ", so that" and substitute therefor --. Accordingly, the call-answering function is enabled via--.

On page 2, line 7, cancel "comprises the call-answering function".

On page 2, line 10, cancel "comprises" and substitute therefor --includes--.

On page 2, line 10, insert a --,-- after "IS".

On page 2, line 10, cancel "plugin" and substitute therefor --plug-in--.

On page 2, line 11, insert a --,-- after "SS".

On page 2, line 12, insert --relatively-- before "little".

On page 2, line 14, cancel the "-".

On page 2, after line 14, insert the following paragraph

--Although the present invention has been described with reference to specific embodiments, those of skill in the art will recognize that changes may be made thereto without departing from the spirit and scope of the invention as set forth in the hereafter appended claims.--

On page 4, (last page) cancel lines 1-2 and substitute the following centered heading therefor:

--ABSTRACT OF THE DISCLOSURE--.

On page 4, line 3, cancel "The invention is directed to an" and substitute therefor --An--.

On page 4, line 3, cancel "(IS)".

On page 4, line 4, cancel "(MK)".

On page 4, line 4, cancel "(DSP)".

On page 4, line 6, cancel "whereby" and substitute therefor --wherein--.

On page 4, line 7, cancel "(SS)".

On page 4, line 7, cancel the "," and substitute therefor --such that--.

On page 4, line 7, cancel "being realized" and substitute therefor --is effected--.

In the Claims:

On page 3, cancel line 1 and substitute the following left-hand justified heading therefor:

--I Claim As My Invention--.

Please cancel claims 1-2, without prejudice, and substitute the following claims therefor:

3. An integrated circuit in a communications terminal device, comprising:

a microcontroller;
a radio-cell specific logic module;
a digital signal processor for digital voice processing; and
an interface to a digital voice memory with which a call-answering functionality is enabled via the microcontroller in combination with the digital voice memory.

4. An integrated circuit in a communications terminal device as claimed in claim 3, wherein call-answering software is deposited in the microcontroller.

5. An integrated circuit in a communications terminal device as claimed in claim 3, wherein the microcontroller, the radio cell-specific logic module and the digital signal processor are connected to one another via an internal bus system.

6. An integrated circuit in a communications terminal device as claimed in claim 5, wherein the digital voice memory also is connected to the internal bus system.

7. A mobile radio device for wireless linking to a cellular radio network according to the DECT standard, comprising:

an integrated circuit having a microcontroller, a radio cell-specific logic module, a digital signal processor for digital voice processing, and an interface to a digital voice memory with which a call-answering functionality

is enabled via the microcontroller in combination with the digital voice memory; and

a receptacle device connected to the integrated circuit for acceptance of the digital voice memory.

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8. A mobile radio device for wireless linking to a cellular radio network as claimed in claim 7, wherein call-answering software is deposited in the microcontroller.

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9. A mobile radio device for wireless linking to a cellular radio network as claimed in claim 7, wherein the microcontroller, the radio cell-specific logic module and the digital signal processor are connected to one another via an internal bus system.

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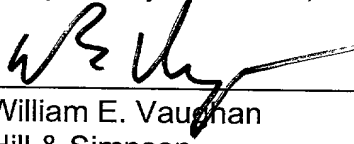
10. A mobile radio device for wireless linking to a cellular radio network as claimed in claim 9, wherein the digital voice memory also is connected to the internal bus system.

REMARKS

The present amendment makes editorial changes and corrects typographical errors in the specification in order to conform the specification to the requirements of the United States Patent practice. No new matter is added thereby. Original claims 1-2 have been canceled in favor of new claims 3-10 solely for clarity and completeness. The cancellation of claims 1-2 does not constitute an intent on the part of the Applicant to surrender any of the subject matter of claims 1-2.

Early consideration on the merits is respectfully requested.

Respectfully submitted,



(Reg.No. 39,056)

William E. Vaughan
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A Professional Corporation
85th Floor Sears Tower
Chicago, Illinois 60606
(312) 876-0200
Attorneys for Applicant

006350" 006350560

INTEGRATED CIRCUIT FOR A MOBILE RADIO DEVICE WITH CALL-ANSWERING FUNCTION

The invention is directed to an integrated circuit according to the preamble of patent claim 1, as well as to a mobile radio device according to the preamble of
5 patent claim 2.

Such a circuit is described, for example, in the article, "Bauelemente für DECT, So wird das Schnurlose Digital", by Stephan Althammer and Dieter Brückmann in Funkschau 3/1994, pages 72-75. This circuit is preferably utilized in a DECT mobile station or, respectively, in an added-feature DECT mobile part.

10 The purchaser of such an added-feature mobile part must decide at the time of purchase whether he wants such a mobile part with or without call-answering function. A retrofitting of the call-answering functionality is not possible in a mobile part. The need for an answering machine can then be satisfied either by purchasing a new mobile part equipped with such a function or by a parallel connection of a
15 traditional call-answering machine to the DECT base station via the TAE socket.

The invention is based on the object of specifying an integrated circuit as well as a mobile radio device of the species initially cited with which a retrofitting of the call-answering function is enabled.

This object is inventively achieved by the features recited in patent claim 1
20 for an integrated circuit and by the features recited in patent claim 2 for a mobile radio device.

The invention is described below on the basis of an exemplary embodiment shown in the drawing.

The single Figure shows an integrated circuit IS. For example, the
25 integrated circuit IS comprises a digital signal processor DSP, a microcontroller MK as well as a burst mode logic BML that are connected to one another via an internal bus system B. This integrated circuit IS is fashioned, for example, for use in a small-cell radio network according to the DECT standard.

Inventively, the integrated circuit IS comprises an interface to a voice memory SS. This voice memory SS is preferably connected to the internal bus system B. Further, the corresponding software is deposited in the microcontroller MK, so that the integrated circuit IS comprises the call-answering function in combination with the voice memory SS.

A mobile radiotelephone device for linking to a cellular mobile
radiotelephone network that comprises this integrated circuit IS as well as a plugin
location for the subsequent acceptance of the voice memory SS can thus be
subsequently upgraded with the call-answering functionality with little outlay. Such a
mobile radiotelephone device also implements the function of a dictating machine and
further-supplements it.

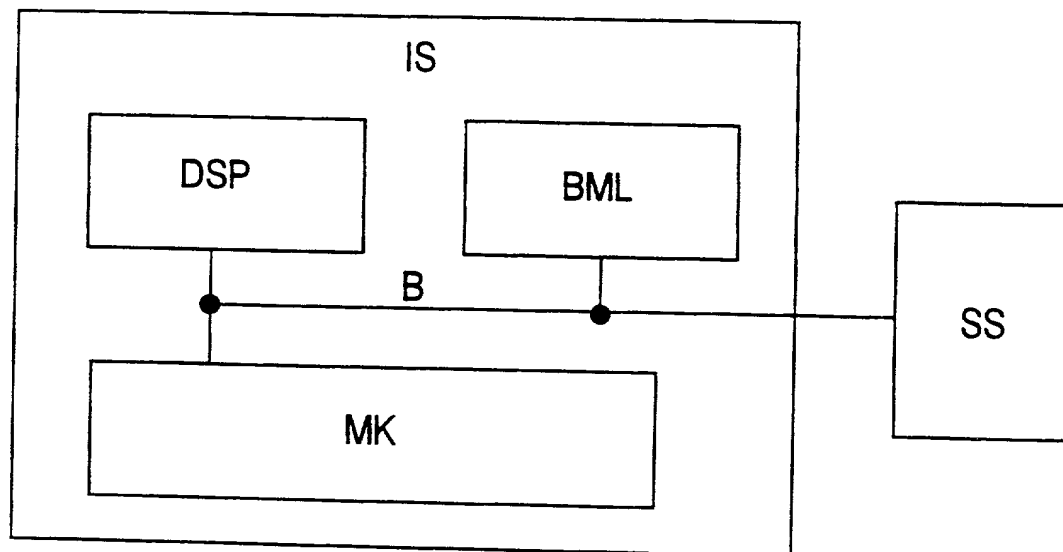
Patent Claims

1. Integrated circuit (IS) having a microcontroller (MK), a radio cell-specific logic module (BML) and a digital signal processor (DSP) for digital voice processing in a communications terminal device, characterized by an interface to a digital voice memory (SS) with which a call-answering functionality is realized together with the microcontroller (MK).

2. Mobile radio device for wireless linking to a cellular radio network, particularly to a radio network according to the DECT standard, having an integrated circuit (IS) that comprises a microcontroller (MK), a radio cell-specific logic module (BML) and a digital signal processor (DSP) for digital voice processing, characterized in that the integrated circuit (IS) comprises an interface to a digital voice memory (SS); and a receptacle means connected to the integrated circuit (IS) is provided for the voice memory (SS).

Integrated Circuit for a Mobile Radio Device with Call-answering Function

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Patent and Trademark Office-U.S. DEPARTMENT OF COMMERCE

German Language Declaration

Prior foreign applications
Priorität beansprucht

Priority Claimed

297 17 372.3 Germany 29. September 1997
(Number) (Country) (Day Month Year Filed)
(Nummer) (Land) (Tag Monat Jahr eingereicht)

☒ ☐
Yes No
Ja Nein

(Number) (Country) (Day Month Year Filed)
(Nummer) (Land) (Tag Monat Jahr eingereicht)

☐ ☐
Yes No
Ja Nein

(Number) (Country) (Day Month Year Filed)
(Nummer) (Land) (Tag Monat Jahr eingereicht)

☐ ☐
Yes No
Ja Nein

Ich beanspruche hiermit gemäss Absatz 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 120, den Vorzug aller unten aufgeführten Anmeldungen und falls der Gegenstand aus jedem Anspruch dieser Anmeldung nicht in einer früheren amerikanischen Patentanmeldung laut dem ersten Paragraphen des Absatzes 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 122 offenbart ist, erkenne ich gemäss Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) meine Pflicht zur Offenbarung von Informationen an, die zwischen dem Anmeldedatum der früheren Anmeldung und dem nationalen oder PCT internationalen Anmeldedatum dieser Anmeldung bekannt geworden sind.

I hereby claim the benefit under Title 35 United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §122, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application

(Application Serial No.)
(Anmeldeseriennummer)

(Filing Date)
(Anmeldedatum)

(Status)
(patentiert, anhängig,
aufgegeben)

(Status)
(patented, pending,
abandoned)

(Application Serial No.)
(Anmeldeseriennummer)

(Filing Date)
(Anmeldedatum)

(Status)
(patentiert, anhängig,
aufgeben)

(Status)
(patented, pending,
abandoned)

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon

005240" 83560560

German Language Declaration

VERTRETUNGSVOLLMACHT: Als benannter Erfinder beauftrage ich hiermit den nachstehend benannten Patentanwalt (oder die nachstehend benannten Patentanwälte) und/oder Patent-Agenten mit der Verfolgung der vorliegenden Patentanmeldung sowie mit der Abwicklung aller damit verbundenen Geschäfte vor dem Patent- und Warenzeichenamt (Name und Registrationsnummer anführen)

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

And I hereby appoint
Messrs. John D. Simpson (Registration No. 19,842) Lewis T. Steadman (17,074), William C. Stueber (16,453), P. Phillips Connor (19,259), Dennis A. Gross (24,410), Marvin Moody (16,549), Steven H. Noll (28,982), Brett A. Valiquet (27,841), Thomas I. Ross (29,275), Kevin W. Guynn (29,927), Edward A. Lehmann (22,312), James D. Hobart (24,149), Robert M. Barrett (30,142), James Van Santen (16,584), J. Arthur Gross (13,615), Richard J. Schwarz (13,472), and Melvin A. Robinson (31,870), David R. Metzger (32,919), John R. Garrett (27,888) all members of the firm of Hill, Steadman & Simpson, A Professional Corporation.

Telefongespräche bitte richten an:
(Name und Telefonnummer)

Direct Telephone Calls to: (name and telephone number)

312/876-0200

Ext _____

Postanschrift:

Send Correspondence to:

HILL, STEADMAN & SIMPSON
A Professional Corporation
85th Floor Sears Tower, Chicago, Illinois 60606

Voller Name des einzigen oder ursprünglichen Erfinders:		Full name of sole or first inventor:	
WEWERS, Otger			
Unterschrift des Erfinders	Datum	Inventor's signature	Date
<i>Otger Wewers</i>	16.9.98		
Wohnsitz		Residence	
D-46395 Bocholt, Germany DEX			
Staatsangehörigkeit		Citizenship	
Bundesrepublik Deutschland			
Postanschrift		Post Office Address	
Brahmsstr. 13			
D-46395 Bocholt			
Bundesrepublik Deutschland			
Voller Name des zweiten Miterfinders (falls zutreffend):		Full name of second joint inventor, if any	
Unterschrift des Erfinders	Datum	Second Inventor's signature	Date
Wohnsitz		Residence	
Staatsangehörigkeit		Citizenship	
Postanschrift		Post Office Address	

(Bitte entsprechende Informationen und Unterschriften im Falle von dritten und weiteren Miterfindern angeben)

(Supply similar information and signature for third and subsequent joint inventors).